

6.0 POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

6.1 Introduction/Overview

This section identifies and evaluates federal and state requirements that are potentially applicable or relevant and appropriate (ARARs) for remedial actions at the City of Moses Lake Maintenance Facility. The ARAR identification process is based on criteria presented in WAC 173-340-710. Final ARARs will be determined in accordance with the requirements of the Agreed Order.

WAC 173-340-360(2) and 173-340-710(1) require that cleanup actions conducted under MTCA (RCW 70.105D) shall comply with applicable federal and state laws. Applicable laws are defined as those requirements that are legally applicable, as well as those that Ecology determines to be both relevant and appropriate.

In order to be defined as a “legally applicable” requirement, the requirement must be promulgated under state or federal law and must specifically address a hazardous substance, cleanup action, location or other circumstance at the site. “Relevant and appropriate” requirements are limited to those requirements promulgated under state and federal laws that, while not legally applicable, are determined by Ecology to address circumstances sufficiently similar to those encountered at the site such that the use of the requirements is well suited to particular site conditions. WAC 173-340-710(4) also includes a limited number of regulations that are automatically considered to be relevant and appropriate requirements.

Identification of ARARs must be made on a site-specific basis and involves a two-part analysis: first, a determination is made whether a given promulgated requirement is applicable; then, if it is not applicable, a determination is made whether it is both relevant and appropriate. A requirement may be either “applicable” or “relevant and appropriate,” but not both.

The following discussion focuses on the most significant potential ARARs. The full list of potential ARARs is presented and discussed in Tables 6-1 and 6-2. The potential regulatory limits (cleanup criteria) for soil and groundwater in the East, Central and West Portion of the Site are presented in Tables 5-1.1 through 5-1.4, 5-2.1 through 5-2.6, and 5-3.1 through 5-3.4, respectively.

6.2 ARARs Based on Federal Laws

Resource Conservation and Recovery Act (RCRA) - 40 CFR 260-268

RCRA provides requirements that address the generation, transport, storage, treatment, and disposal of hazardous waste. In Washington, the majority of RCRA authority has been delegated to Ecology and is implemented through the Dangerous Waste Regulations (WAC 173-303).

6.3 ARARs Based on State Laws

Model Toxics Control Act - RCW 70.105D

MTCA is the key governmental regulation governing the conduct of the overall investigation and cleanup process for the site and is therefore applicable. MTCA describes the requirements for selecting cleanup actions, preferred technologies, policies for use of permanent solutions, the time frame for cleanup, and the process for making decisions. The regulation specifies that all cleanup actions be protective of human health and the environment, comply with cleanup standards (WAC

173-340-700 through WAC 173-340-760), comply with all applicable state and federal regulations, and provide for appropriate compliance monitoring. In addition, cleanup actions shall also use permanent solutions to the maximum extent practicable, provide for a reasonable restoration time frame and consider public concerns.

Specific criteria for the various cleanup methods are presented in the MTCA regulations. The MTCA regulations specify that cleanup actions utilize permanent solutions to the maximum extent practicable. Although MTCA identifies a hierarchy of preferred technologies that should be evaluated for use in the cleanup action, cost may also be a factor in determining points of compliance and selection of cleanup actions. For example, if the cost of cleanup action is substantial and disproportionate to the incremental increase in protection compared to a lesser preferred cleanup action, the less preferred action may be selected.

MTCA (RCW 70.105D.090) exempts remedial actions conducted pursuant to an Agreed Order or a Consent Decree from the procedural requirements of several state laws. These include the State Clean Air Act (RCW 70.94), Solid Waste Management - Reduction and Recycling Act (RCW 70.95), Hazardous Waste Management Act (RCW 70.105), Water Pollution Control Law (RCW 90.48), Shoreline Management Act (RCW 90.58), and Construction Projects in State Waters (RCW 75.20). In addition, the exemption also applies to the procedural requirements of any laws requiring or authorizing local governmental permits or approval for the remedial action. Therefore, while substantive compliance is necessary, permits and approvals are not required for remedial actions at the site. Substantive requirements are included in the Consent Decree, Agreed Order, or Enforcement Order implementing a cleanup action.

Model Toxics Control Act Cleanup Regulations - WAC 173-340

Regulations under Chapter 173-340 WAC, which implement the requirements of MTCA, are the primary regulatory vehicle under which the Moses Lake Maintenance Facility Site RI/FS process is being conducted and are therefore applicable. These regulations establish administrative processes and standards to identify, investigate and cleanup facilities where hazardous substances have been released.

WAC 173-340 Part VII establishes cleanup levels for environmental media, including groundwater, soil, and surface water. This regulation also contains standards for air emissions. Three methods are presented for determining cleanup levels: Method A (routine, using tables), Method B (universal), and Method C (conditional, primarily for industrial sites). All three MTCA methods for determining cleanup levels require compliance with other federal or state ARARs, and consideration of cross-media contamination. Method A is generally used for routine cleanups with relatively few contaminants. Method A standards are presented in tables in the MTCA rule.

Method B is the standard method for determining cleanup levels. Currently, Method B soil cleanup levels assume a residential use scenario, although Ecology could develop Method B industrial soil cleanup standards. Method B groundwater cleanup standards do not currently differentiate between residential and industrial use assumptions. Method B levels are determined using federal or state ARARs or are based on risk equations specified in MTCA regulations. For individual carcinogens, the cleanup levels are based on the upper bound of the excess lifetime cancer risk of one in one million (1×10^{-6}). Total excess cancer risk under Method B for multiple substances and pathways cannot exceed one in one hundred thousand (1×10^{-5}), and the total hazard index for substances with similar types of toxic response must be less than 1.

Method C cleanup levels are used where Method A and B are not appropriate. One of the following conditions must be met: Method A or Method B cleanup levels are below area background concentrations; cleanup to Method A or Method B levels has the potential for creating greater overall threat to human health and the environment than Method C; cleanup to Method A or Method B is not technically possible; or the site meets the definition of an industrial site. The requirements for qualification as a Method C industrial site are specified in WAC 173-340-740 and -745.

Method C cleanups must comply with applicable state and federal laws, must use all practicable levels of treatment and must incorporate institutional controls as specified in WAC 173-340-740 and 720. Risk-based equations for Method C cleanup levels for soil are specified in WAC 173-340-740 for residential and WAC 173-340-745 for industrial exposure assumptions. Method C cleanup standards for groundwater do not currently differentiate between residential and industrial use assumptions and are determined as specified in WAC 173-340-720. Total excess cancer risk for Method C, and the risk associated with individual compounds, cannot exceed 1 in one hundred thousand (1×10^{-5}), and the total hazard index for substances with similar types of toxic response must be less than 1. Method C cleanup levels that protect beneficial uses of groundwater other than drinking water are established by Ecology on a case-by-case basis. Method C cleanup criteria are not used for the Moses Lake Maintenance Facility Site.

For all three methods of establishing cleanup levels, Ecology must select a “point of compliance” for determining whether the cleanup level has been met. The point of compliance is defined as the point or points throughout the site where cleanup levels are established in accordance with the cleanup requirements for groundwater and soil specified in Sections 173-340-720 and -750. The point of compliance for soil cleanup levels based on the protection of groundwater is to be achieved in all soils throughout the site. For soil cleanup levels based on human exposure via direct contact, the point of compliance shall be established throughout the site from the ground surface to a depth of 15 feet. These depths represent the extent that soils may be potentially excavated or disturbed as a result of site development.

For cleanup alternatives that involve containment of hazardous substances, the soil cleanup levels are not required to be met at the points of compliance described above. WAC 173-340-720(8)(c) provides that where it can be demonstrated under WAC 173-340-350 through 173-340-390 that it is not practicable to meet the cleanup level throughout the site within a reasonable restoration time frame, Ecology may approve a conditional point of compliance for groundwater cleanup which shall be as close as practicable to the source of hazardous substances, and except as provided under (d) of the subsection, not to exceed the property boundary. Where a conditional point of compliance is proposed, the person performing the cleanup action must still demonstrate that all practicable methods of treatment are utilized. In these cases, compliance monitoring and other requirements identified in 173-340-740(6)(f) are required to ensure long-term integrity of the containment system.

State Environmental Policy Act (SEPA) – RCW 43.21C,

SEPA (RCW 43.21C) may be applicable to remedial actions at the Moses Lake Maintenance Facility Site. Ecology is the lead agency for MTCA remedial actions performed under a Consent Decree or an Agreed Order pursuant to WAC 197-11-253.

The SEPA process is triggered when a governmental action is taken on a public or private proposal. According to WAC 197-11-784, a proposal includes both regulatory decisions of agencies and actions proposed by applicants. If the proposal is not “exempt,” Ecology will require the submission of a SEPA checklist, which solicits information regarding how the proposal will affect elements of the environment, such as air, water, etc.

If the proposal is determined by Ecology to have a “probable significant adverse environmental impact,” an environmental impact statement (EIS) will be required, which examines potential environmental problems that would be caused by the proposal and options for mitigation. If in Ecology’s opinion, there will be no significant adverse environmental impact, a Determination of Non-significance (DNS) will be issued and the SEPA process is completed without preparation of an EIS.

Any public comment period required under SEPA may be combined with any comment period associated with the MTCA process to expedite and streamline public input. According to WAC 197-11-259, if Ecology determines that the proposal will not have a probable significant adverse environmental impact, the DNS can be issued with the draft Cleanup Action Plan prepared pursuant to MTCA.

Dangerous Waste Regulations - WAC 173-303

The Washington State Dangerous Waste Regulations (WAC 173-303) are the state equivalent of the federal RCRA legislation, and contain a series of rules relating to the generation, handling, storage and disposal of dangerous waste. Recent MTCA amendments, as discussed above, exempt cleanup actions conducted under an Agreed Order or Consent Decree from the procedural requirements of several state laws, including the Hazardous Waste Management Act. Since implementation of the Act is afforded through the Dangerous Waste Regulations, this exemption also applies to the 173-303 rules. In addition, a recent amendment to the state Hazardous Waste Management Act (RCW 70.105) provides a conditional exemption to state-only dangerous wastes generated when a remedial action is conducted pursuant to a Consent Decree with Ecology. The exemption is not applicable to material that is a hazardous waste under Federal RCRA. The Consent Decree must provide management practices for the waste being generated, and must include a treatment or disposal location approved by Ecology.

Therefore, no WAC 173-303 procedural requirements will be applicable to remedial actions conducted at the site if the actions are conducted pursuant to a Consent Decree or Agreed Order. However, if non-exempt dangerous waste is generated and/or transported off the Site during cleanup, substantive requirements pertaining to dangerous waste generation, handling, storage, and disposal may be applicable under WAC 173-303.

The following section describes the specific cleanup level goals for the Moses Lake Maintenance Facility Site based on the COCs identified in Section 5.0 and the ARARs identified in Section 6.0.